REMARKS/ARGUMENTS

Reconsideration is requested in view of the following remarks. Claim 1 has been editorially revised. Support for the revisions to claim 1 are found in claim 2, now canceled, as well as lines 8-26 on page 11 of the specification. Claim 3 has been editorially revised to now depend from claim 1. Claims 11 and 12 have been newly added. Support for claims 11 and 12 can be found in the specification from line 3 of page 9 to line 3 of page 10 as well as in Figure 3. Claims 1 and 3-12 are pending in the application.

Claim Rejections – 35 USC §103

Claims 1-10 are rejected under 35 U.S.C. §103(a) as unpatentable over Ohmura et al. (US 2001/0033744) in view of Kurematsu et al. (US 5,816,677). Applicant respectfully traverses this rejection.

Claim 1 is directed to an optical printhead which comprises a light source and a light guide including a light incident surface facing the light source and a flat light emitting surface extending in a primary scanning direction. The light guide includes a counter surface extending in the primary scanning direction and arranged opposite to the light emitting surface. The counter surface is provided with a plurality of grooves spaced from each other in the primary scanning direction. Each of the grooves includes inclined surfaces for reflecting light traveling in the light guide so that the light is directed toward the light emitting surface. The grooves become progressively shallower toward the light source.

Figures 7A and 7B depict one embodiment of the grooves recited in claim 1 in which the upper surface (counter surface) of the light guide 52 is provided with a plurality of grooves 527, each including inclined surfaces 524, 526. The grooves 527 become shallower toward the light source 52. Such a structure is advantageous in that more light needs to be reflected toward the light emitting surface of the light guide 52 at a location farther from the light source 53, thereby equalizing the amount of emitted light in the primary scanning direction of the light guide 52.

Neither Ohmura et al. alone or in combination with Kurematsu et al. teach or suggest a light guide provided with a plurality of grooves that become progressively shallower toward the light source such as recited in claim 1. For at least these reasons, claim 1 is patentable over the cited art, alone or in combination. Claims 3-10 are also patentable over the cited art since they depend ultimately from claim 1 that is allowable.

New independent claim 11 is directed to an optical printhead which comprises, in part, a lens array for transmitting light from a light collecting layer, and a prism for directing light from the lens array toward a photosensitive recording medium. The prism includes a light emitting surface. The light emitting surface of the prism includes a recess and protrusions; and the light emitting surface of the prism contacts the photosensitive recording medium only at the protrusions.

Because the prism 32, shown according to one embodiment in Figure 5, contacts the photosensitive recording medium only at the protrusions 326, the printhead can move smoothly over the recording medium with a lower possibility of damaging the recording medium, as described for one embodiment on lines 23-27 on page 9 of the specification.

New independent claim 12 is directed to an optical printhead which comprises, in part, a lens array for transmitting light from a light collecting layer, and a prism for directing light from the lens array toward a photosensitive recording medium. The lens array includes a plurality of lenses retained by a lens holder. The prism includes a light incident surface held in contact with the lens holder of the lens array. The light incident surface of the prism includes a recess facing and spaced from the lenses of the lens array.

Because the light incident surface 321, shown according to one embodiment in Figure 5, includes a recess 324 facing and spaced from the lenses 313 of the lens array 31, the lenses are prevented from being damaged by contact with the prism, as described for one embodiment on lines 14-16 on page 9 of the specification.

Neither Ohmura et al. alone or in combination with Kurematsu et al. teach or suggest a prism for directing light toward a recording medium such as recited in claims 11 and 12. For at least these reasons, claims 11 and 12 are also patentable over the cited art, alone or in combination.

Favorable reconsideration in the form of a Notice of Allowance is requested. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone Applicant's primary attorney-of-record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

Respectfully submitted,

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